

What is claimed is:

5 *Page 7* 1. An isolated *Mda-7* promoter capable of directing transcription of a heterologous coding sequence positioned downstream therefrom, wherein the promoter is selected from the group consisting of:

(a) a promoter comprising the nucleotide sequence shown in SEQ ID NO:1 ;

10 (b) a promoter comprising a nucleotide sequence functionally equivalent to the nucleotide sequence shown in SEQ ID NO: 1; and

15 (c) a promoter comprising a nucleotide sequence that hybridizes to a sequence complementary to the promoter of (a) or (b) in a Southern hybridization reaction performed under stringent conditions.

20 2. The promoter of claim 1, wherein the promoter comprises the nucleotide sequence shown in SEQ ID NO:1.

✓ 3. A recombinant expression construct effective in directing the transcription of a selected coding sequence which comprises:

25 (a) an *Mda-7* promoter nucleotide sequence according to claim 1; and

30 (b) a coding sequence operably linked to the promoter, whereby the coding sequence can be transcribed and

translated in a host cell, and the promoter is heterologous to the coding sequence.

5 4. The recombinant expression construct of claim 3, wherein the Mda-7 promoter comprises a human Mda-7 promoter.

10 5. The recombinant expression construct of claim 3, wherein the human Mda-7 promoter comprises the nucleotide sequence shown in SEQ ID NO:1 from the thymidine (T) at position -2241 to the cytosine (C) at position 0.

6. The recombinant expression construct of claim 3, wherein the coding sequence encodes a tumor suppressor polypeptide.

15 7. The recombinant expression construct of claim 6, wherein the tumor suppressor polypeptide is p21, retinoblastoma protein or p53.

20 8. A host cell comprising the recombinant expression construct of claim 3.

9. The host cell of claim 8, wherein the host cell is stably transformed with the recombinant expression construct of claim 3.

25 10. The host cell of claim 8, wherein the host cell is a tumor cell.

30 11. The host cell of claim 8, wherein the host cell is a melanocyte.

12. The host cell of claim 8, wherein the cell is an immortalized cell.

5 13. The host cell of claim 10, wherein the tumor cell is a melanoma cell, a neuroblastoma cell, an astrocytoma cell, a glioblastoma cell, a multifore cell, a cerival cancer cell, a breast cancer cell, a lung cancer cell or a prostate cancer cell.

14. A method for expressing foreign DNA in a host cell comprising: introducing into the host cell a gene transfer vector comprising an Mda-7 promoter nucleotide sequence operably linked to a foreign DNA encoding a desired polypeptide or RNA, wherein said foreign DNA is expressed.

15. The method of claim 14, wherein the promoter nucleotide sequence is identical to the sequence from position -2241 to position 0 of SEQ ID NO:1.

16. The method of claim 14, wherein the promoter nucleotide sequence is a nucleotide sequence functionally equivalent to the Mda-7 promoter sequence from position -2241 to position 0 of SEQ ID NO:1.

17. The method of claim 14, wherein the gene transfer vector encodes and expresses a reporter molecule.

18. The method of claim 17, wherein the reporter molecule is selected from the group consisting of beta-galactosidase, luciferase and chloramphenicol acetyltransferase.

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19. The method of claim 14, wherein the introducing is carried out by a means selected from the group consisting of adenovirus infection, liposome-mediated transfer, topical application to the cell, and microinjection.

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✓ 20. An isolated *Mda-7* promoter capable of directing the transcription of a heterologous coding sequence positioned downstream therefrom, wherein the promoter is selected from the group consisting of

10 (a) a promoter comprising the nucleotide sequence from the thymidine at position -2241 to the cytosine at position 0 shown in SEQ ID NO:1;

15 (b) a promoter comprising a nucleotide sequence functionally equivalent to the promoter in element (a); and

20 (c) a promoter comprising a nucleotide sequence that hybridizes to a sequence complementary to the promoter of element (a) or element (b) in a Southern hybridization reaction performed under stringent conditions.

25 ✓ 21. A method for treating cancer in a subject suffering therefrom which comprises administering to the subject an effective amount of a pharmaceutical composition which comprises a recombinant expression construct comprising:

30 (a) a nucleic acid molecule that encodes a selected polypeptide; and

(b) an *Mda-7* promoter nucleotide sequence operably linked to the nucleic acid molecule of element (a), wherein the coding sequence will be transcribed and translated when in a host cell to produce the selected polypeptide, and the *Mda-7* promoter is heterologous to the coding sequence and a pharmaceutically acceptable carrier.

22. The method of claim 21, wherein the cancer is melanoma, neuroblastoma, astrocytoma, glioblastoma multiforme, cervical cancer, breast cancer, colon cancer, prostate cancer, osteosarcoma, or chondrosarcoma.

23. The method of claim 21, wherein the cancer is a cancer of the central nervous system of the subject.

24. The method of claim 21, wherein the administering is carried out via injection, oral administration, or topical administration.

25. The method of claim 21, wherein the carrier is an aqueous carrier, a liposome, or a lipid carrier.